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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,767	07/28/2003	David A. Ferrera	MICRU-65125	5783

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EXAMINER

SONNETT, KATHLEEN C

ART UNIT	PAPER NUMBER
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3731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

88

Office Action Summary	Application No. 10/628,767	Applicant(s) FERRERA ET AL.	
	Examiner Kathleen Sonnett	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 148-153 and 165-178 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 165-177 is/are allowed.
- 6) ☒ Claim(s) 148 and 150-152 is/are rejected.
- 7) ☒ Claim(s) 149, 153 and 178 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/22/2006 have been fully considered but they are not persuasive. Applicant asserts that the amendment to independent claim 148 distinguishes the instant claims from the device of Phelps (U.S. 5,382,259). However, using the embodiment shown in fig. 14, each loop can be considered a coiled arm and there are 6 coil arms shown. The inner arms of each loop are connected to the inner arms of the adjacent loops. The central body is connected to the inner arms of the coils since it is connected to the two end loops' inner arms, which are connected to the adjacent coils.
2. The double patenting rejections previously presented in the Office Action dated 8/23/2006 have been withdrawn in view of the cancellation of claims 154-164 and the filing of the Terminal Disclaimer.

Terminal Disclaimer

3. The terminal disclaimer filed on 11/22/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. 6,616,617 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

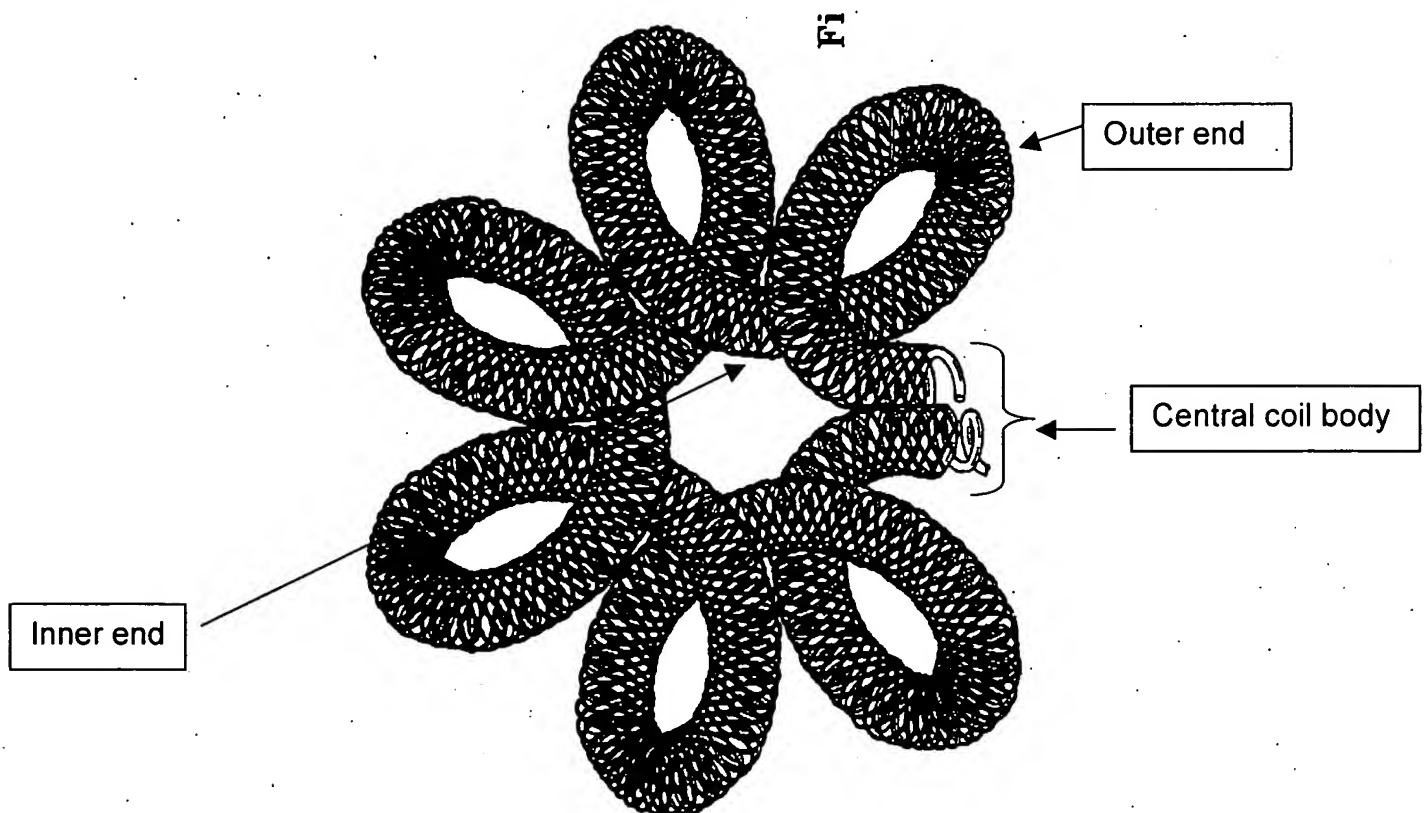
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3731

5. **Claims 148, 150, and 152** are rejected under 35 U.S.C. 102(b) as being anticipated by Phelps et al. (U.S. 5,382,259). Phelps et al. disclose an occlusive device for use in interventional therapy and vascular surgery, adapted to be inserted into a portion of a vasculature, the occlusive device comprising at least four coil arms formed of shape memory material having a collapsed primary coil configuration and a three dimensional, polyhedral expanded secondary configuration, the coil arms having inner and outer ends, the inner ends of the coil arms being connected together and a central coil body connected to the inner ends of the coil arms.



6. The inner ends of each coil arm are connected to the inner arms of the coil arms on each side. Therefore, they are all connected to each other. That is, if one were to pull on one

Art Unit: 3731

coil arm and move the device, the other arms would follow. They are similarly connected to the central coil body.

7. Regarding claim 150, the central body comprises a central three dimensional coil connecting the inner ends of the at least four coil arms together and the central three dimensional coil has a shape selected from the group consisting of spherical, rounded, and cubical shapes. The central body is being considered rounded since it is made up of two coiled ends.

8. Regarding claim 152, the coil arms comprise at least one secondary wind coil of a primary helical wind coil.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claim 151** is rejected under 35 U.S.C. 103(a) as being unpatentable over Phelps et al. in view of Engelson et al. (U.S. 5,423,849). Phelps discloses the invention as stated above including a plurality of coil arms and a multistranded micro-cable (162) having a plurality of flexible strands of a resilient material but fails to disclose at least one radiopaque strand included in the cable.

11. However, Engelson et al. discloses that it is old and well known in the art to include radiopaque fibers in braided cables of occlusive devices (see claim 1 and col. 3 lines 26-30) to increase visibility of the device. As disclosed by Engelson et al., the fibrous elements such as those disclosed by Phelps are important for tissue growth but are not normally radiopaque and

Art Unit: 3731

make retrieval of the device difficult. Engelson et al. discloses that this braid is desirable in that the ratio of fibrous to metallic material is quite high which increases embolic and tissue growth (col. 1 lines 50-60) but it has enhanced radiopacity due to the metallic strands in the braid (col. 2, lines 30-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Phelps et al. to include a radiopaque strand as made obvious by Engelson et al. in order to improve imaging of the device.

Allowable Subject Matter

12. Claims 149, 153, and 178 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 165-177 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 3731

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen Sonnett whose telephone number is 571-272-5576. The examiner can normally be reached on 7:30-5:00, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCS 1/17/2007


GLENN K. DAWSON
PRIMARY EXAMINER

Application/Control Number: 10/628,767
Art Unit: 3731

Page 7